

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A particulate sealant for forming plugs in selected cells of honeycomb structures and consisting essentially, by weight, of:
about ~~70~~ 80 to ~~90~~ 85 % ceramic blend, the ceramic blend being raw ceramic materials selected to form a composition consisting essentially of in percent by weight about 12 to 16% MgO, about 33 to 38% Al₂O₃, and about 49 to 54% SiO₂, which will form cordierite (2MgO·2Al₂O₃·5SiO₂) on firing, and
about ~~40~~ 15 to ~~30~~ 20 % binder system comprising a thermoplastic polymer capable of forming a reversible gel or a thermosetting resin.

2. (cancelled)

2. 3. (currently amended) The particulate sealant according to claim ~~2~~ 1 wherein the binder system comprises thermoplastic polymer capable of forming a reversible gel in combination with a low melting wax and a dispersant.

3. 4. (original) The particulate sealant according to claim ~~3~~ 2 wherein the binder system has a formulation consisting essentially, by weight, of about 5-20% low melting wax, 1-7% high molecular weight thermoplastic polymer, and 0-5% dispersant.

4. 5. (original) The particulate sealant according to claim ~~4~~ 3 wherein the binder system has a formulation consisting essentially, by weight, of about 9.8-10.0% low melting wax, 4.9-5.0% high molecular weight thermoplastic, and 1.7% dispersant.

5. 6. (original) The particulate sealant according to claim ~~5~~ 4 wherein the thermoplastic polymer is a tri-block styrene-ethylene/butylene-styrene copolymer, or a butyl methacrylate/acrylic acid copolymer.

6. 7. (original) The particulate sealant according to claim ~~6~~ 5 wherein the low melting wax is selected from the group consisting of fatty alcohol, fatty acid, fatty glycol, and fatty glyceride waxes.

7/8. (original) The particulate sealant according to claim 7⁶ wherein the thermoplastic polymer is tri-block styrene-ethylene/butylene-styrene copolymer and the low melting wax is fatty alcohol.

8/9. (original) The particulate sealant according to claim 7⁷ wherein the thermoplastic polymer is butyl methacrylate/acrylic acid copolymer and the low melting wax is fatty alcohol.

9/10. (original) The particulate sealant according to claim 1¹ wherein the binder system comprises a thermosetting resin.

10/11. (original) The particulate sealant according to claim 10⁹ wherein the thermosetting resin is selected from the group consisting of epoxy resins, phenolics, diallyl phthalates, unsaturated polyesters and functionalized acrylics.

11/12. (original) The particulate sealant according to claim 11¹⁰ wherein the thermosetting resin is epoxy resin.

12/13. (original) The particulate sealant according to claim 12¹¹ wherein the epoxy resin is combined with a crosslinking agent, and a dispersant.

13/14. (original) A material in powder form for sealing the end of selected cells of honeycomb structures and consisting essentially, by weight, of:
about 78 to 84% ceramic blend, the ceramic blend being raw ceramic materials selected to form a composition consisting essentially of in percent by weight about 12 to 16% MgO, about 33 to 38% Al₂O₃, and about 49 to 54% SiO₂, which will form cordierite (2MgO·2Al₂O₃·5SiO₂) on firing, and
about 16 to 28% binder system, the binder consisting essentially, by weight, of about 9.5-15.0% low melting wax, about 5% thermoplastic polymer, and about 2 dispersant.

14/15. (original) The material according to claim 14¹³ wherein the low melting wax is selected from the group consisting of fatty alcohol, fatty acid, fatty glycol, and fatty glyceride waxes.

15/16. (original) The particulate sealant according to claim 15¹⁴ wherein the thermoplastic is tri-block styrene-ethylene/butylene-styrene copolymer and the low melting wax is fatty alcohol.